WHAT IS CLAIMED IS:

1. A charging method for a battery pack, wherein each of the at least two series – connected cells is supplied with an effective charging current (I_{Charge}) in a charging cycle (1) over a charging period and is supplied with a lower effective refresh current ($I_{refresh}$) in an at least occasional subsequent refresh cycle (2) over a refresh charging cycle (6), wherein the refresh cycle (2) follows after a period (K) in a number (M) of charging cycles (1).

2. The charging method of claim 1, wherein in the charging cycle (1), the number (M) of charging cycles (1) and a flag (F) for the complete termination of the last refresh cycle (2) is stored in a readable – writable data memory associated with the charging unit and arranged in the battery pack.

3. The charging method of claim 1, wherein in the refresh cycle (2), the effective refresh current ($I_{refresh}$) is at least battery nominal capacity ($C_{nominal}$) / 4h.

4. The charging method of claim 3, wherein, in the refresh cycle (2), the refresh time ($t_{refresh}$) is at least 20 min and not more than 0.4 * battery nominal capacity ($C_{nominal}$) / refresh current ($I_{refresh}$); optionally a maximum of 0.2 * battery nominal capacity ($C_{nominal}$) / refresh current ($I_{refresh}$).

5. The charging method of claim 4, wherein the temperature of the battery pack (T_{akku}) measured by a sensor is monitored by a control element during at least one of the charging cycle (1) and the refresh cycle (2), and wherein the temperature of the battery pack

(T_{akku}) upon exceeding a critical temperature the effective current is one of reduced and interrupted.

6. The charging method of claim 5, wherein the refresh cycle (2) commences only after falling below a refresh start temperature.

7. The charging method of claim 6, wherein at least two temporally spaced refresh charging cycles (6) are available within the refresh cycle (2).

8. The charging method of claim 7, wherein at least one refresh charging cycle (6) is prematurely interrupted upon reaching a refresh maximum temperature.

9. The charging method of claim 7, wherein a further refresh cycle (6) starts upon falling below a refresh minimum temperature.

10. The charging method of claim 7, wherein the refresh cycle (2) is automatically started depending on the data (M, F, K, $C_{nominal}$, I_{Charge}) stored in the data memory of the battery pack.

11. The charging method of claim 3, wherein in the refresh cycle (2), the effective refresh current ($I_{refresh}$) is at least battery nominal capacity ($C_{nominal}$) / 2h.

12. The charging method of claim 4, wherein, in the refresh cycle (2), the refresh time ($t_{refresh}$) is a maximum of 0.2 * battery nominal capacity ($C_{nominal}$) / refresh current ($I_{refresh}$).

13. The charging method of claim 6, wherein the refresh start temperature is 60 °C.

14. The charging method of claim 7, wherein three temporally spaced refresh charging cycles (6) are available within the refresh cycle (2).

15. The charging method of claim 8, wherein the refresh maximum temperature is 60 °C.

16. The charging method of claim 7, wherein the refresh minimum temperature is 50 °C.